DOCUMENT RESUME

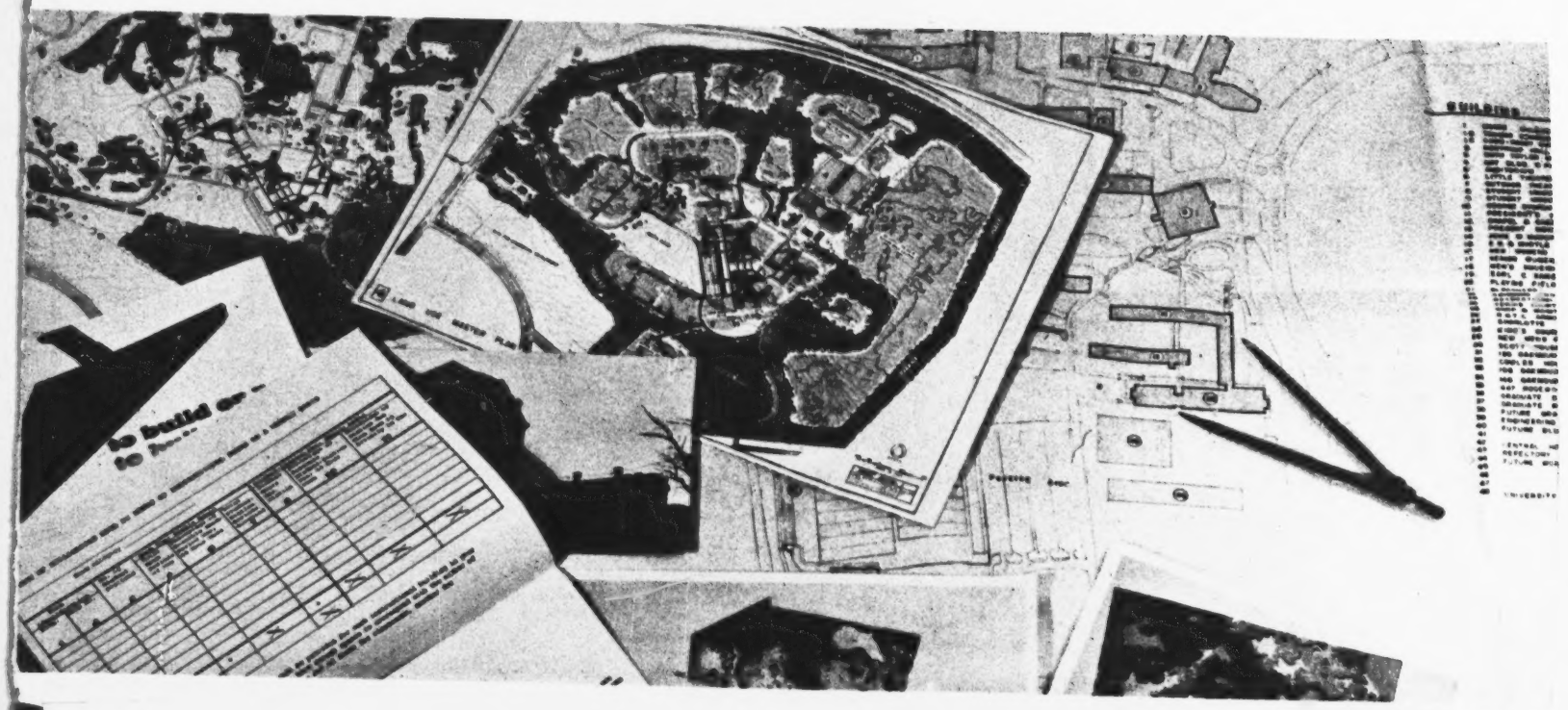
ED 033 563 EF 003 722

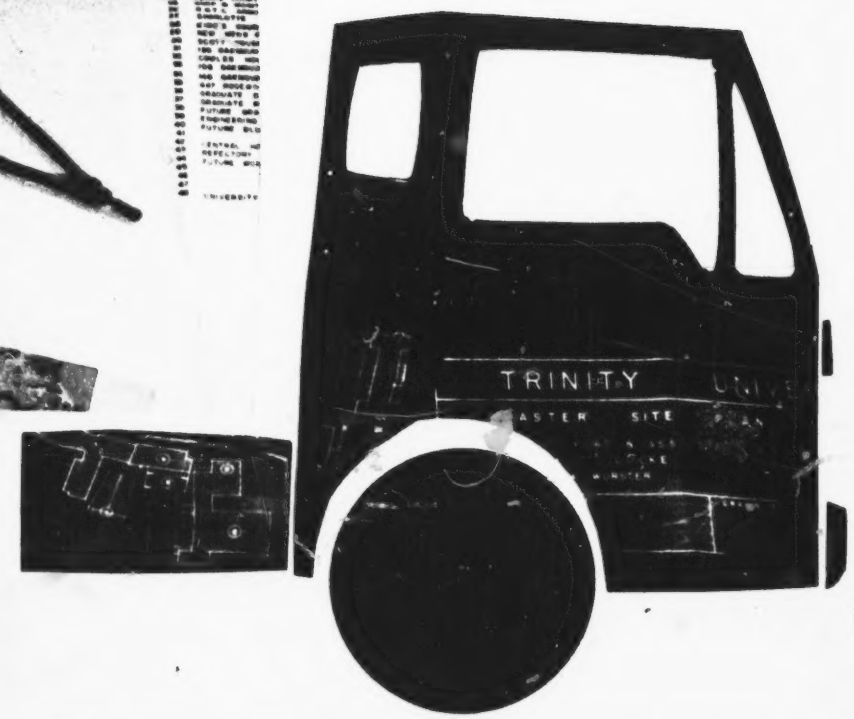
AUTHOR	Zisman, S.B.; Powell, Catherine
TITLE	New Campuses for Old--A Case Study of Four Colleges That Moved.
INSTITUTION	Educational Facilities Labs., Inc., New York, N.Y.
Pub Date	63
Note	32p.
EDRS Price	EDRS Price MF-$0.25 HC-$1.70
Descriptors	Campus Planning, *College Planning, *Construction Costs, Cooperative Planning, Educational Specifications, *Facility Case Studies, Facility Guidelines, *Higher Education, *Relocation, School Community Relationship, School Location, Transportation

Abstract

This report treats the problems involved in moving from an old campus and creating a new campus. It is based on the experiences of four colleges with particular emphasis on Skidmore College in Saratoga Springs, N.Y., which has decided to move. The questions discussed center around such topics as the reason for moving, the kind of new site, the kind of new campus and new program, and what to move first. Particular problems studied are transportation, duplication, conversions, costs, internal adjustments and effect on community. The report advises that the master plan needed for such an undertaking be developed by an outside planning agency. This document was previously announced as ED 015 630. (HH)

ED033563





EF 003 722

T FROM EDUCATIONAL FACILITIES LABORATORIES **NEW CAMPUSES FOR OLD: A CASE STUDY OF FOUR COLLEGES THAT MOVED**

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Educational Facilities Laboratories, Inc. is a nonprofit corporation established by the Ford Foundation in 1958 to help American schools and colleges with their physical problems by the encouragement of research and experimentation and the dissemination of knowledge regarding educational facilities.

BOARD OF DIRECTORS

Milton C. Mumford, CHAIRMAN
President, Lever Brothers Company

Alvin C. Eurich, VICE CHAIRMAN
Vice President and Director, The Fund for the Advancement of Education

Clay P. Bedford
President, Kaiser Aircraft and Electronics Corporation

James C. Downs, Jr.
President, Real Estate Research Corporation

Henry Dreyfuss
Industrial Designer

Morris Duane
Attorney, Duane, Morris and Heckscher

Harold B. Gores
President, Educational Facilities Laboratories

Frederick L. Hovde
President, Purdue University

J. E. Jonsson
Chairman of the Board, Texas Instruments, Inc.

J. L. Morrill
Consultant, The Ford Foundation

Winthrop Rockefeller
Winrock Farm, Morrilton, Arkansas

Thomas J. Watson, Jr.
Chairman of the Board, International Business Machines Corporation

Benjamin C. Willis
General Superintendent of Schools, Chicago, Illinois

OFFICERS

Harold B. Gores, PRESIDENT

Jonathan King, SECRETARY AND TREASURER

EXECUTIVE STAFF

Frank Carioti, *Consultant*
Robert M. Dillon, A.I.A., *Consultant*
Margaret Farmer, *Editorial Associate*
Arnold J. Kuesel, *Assistant Treasurer*
James Morisseau, *Editorial Associate*
Glendon P. Nimnicht, *Program Associate*
Fred Linn Osmon, *Architectural Associate*
Ruth Weinstock, *Research Associate*

Library of Congress Catalog Card #62-21227
Additional copies are available from Educational Facilities Laboratories, 477 Madison Avenue, New York 22, N.Y.

ED033563

NEW CAMPUSES FOR OLD: A CASE STUDY OF FOUR COLLEGES THAT MOVED

PREPARED BY S. B. ZISMAN AND CATHERINE POWELL

A REPORT FROM EDUCATIONAL FACILITIES LABORATORIES

ARCHITECTS AND PLANNERS:

COLBY COLLEGE	Jens Fredrick Larson, Wake Forest, North Carolina, Architect
GOUCHER COLLEGE	Moore and Hutchins, New York City, Architect Sasaki, Walker & Associates, Inc., Site Planners and Landscape Architects
HARPUR COLLEGE	Moore and Hutchins, New York City, Architects Clarke & Rapuano, Site Engineers and Landscape Architects
TRINITY UNIVERSITY	O'Neil Ford and Associates; Bartlett Cocke, Architects; William W. Wurster, Consultant

FOREWORD

Colleges, unlike college presidents, rarely move from campus to campus. But, occasionally, a college does pick up and move from one place to another. This is the story of four such institutions: Colby, Goucher, Harpur, and Trinity. The story is told from the point of view of a fifth – Skidmore – which has decided to move.

Moving an entire campus is a drastic approach to planning for the future. But drastic remedies often make sense. None of the four colleges studied would now question the reasonableness of having moved.

Throughout the United States there are colleges imprisoned on campuses that are too small, often surrounded by decaying neighborhoods. Their buildings frequently are old, dilapidated, poorly-located, and expensive to maintain. In some cases, the institution has a responsibility, to the community and students it serves, to remain where it is and rebuild.* There are other colleges which should seriously consider the alternative of moving.

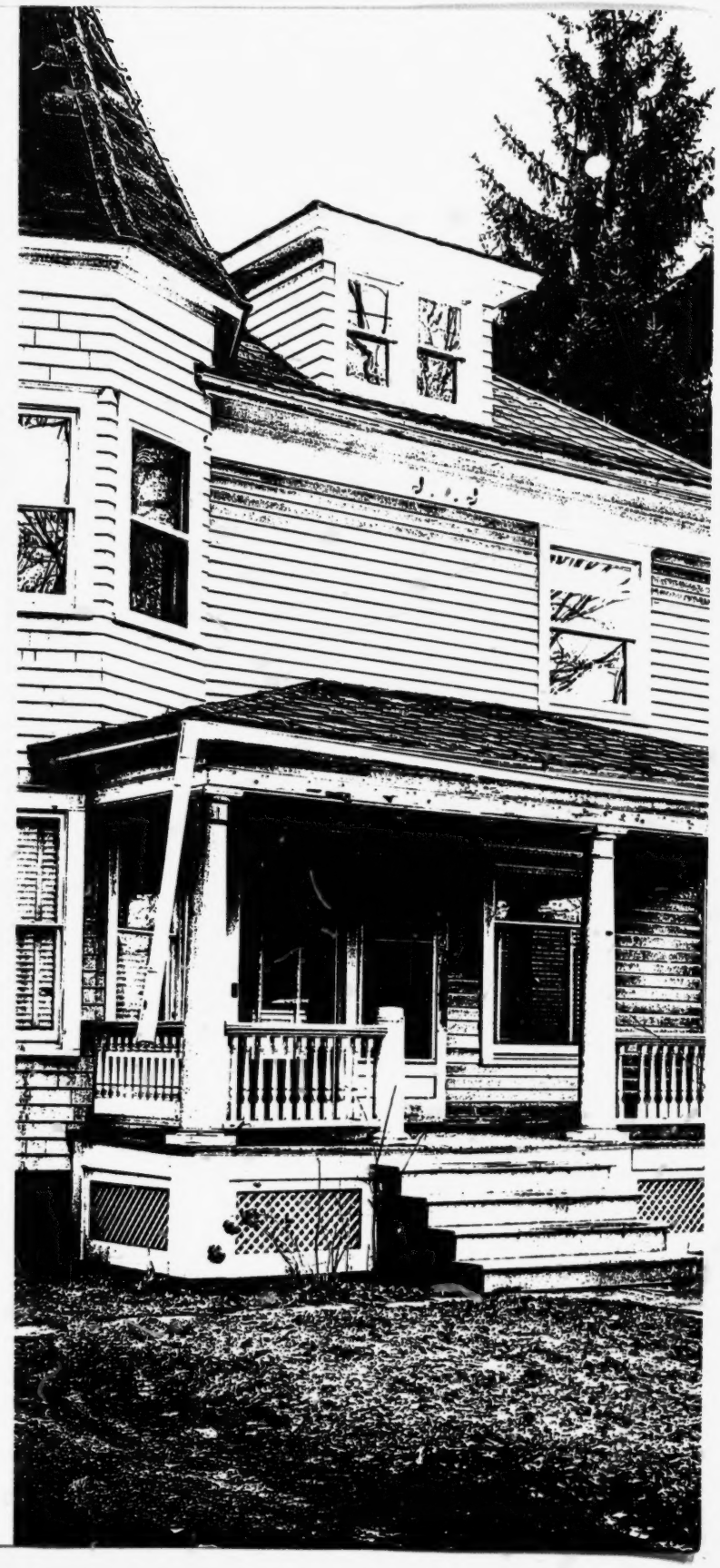
The purpose of this investigation was to determine for Skidmore – and for other colleges – what the decision to move means to an institution economically, academically, socially, and physically. How does moving affect students and faculty; the institution's finances; its growth and academic performance? What does it mean to the community? And what are the problems of transition?

We hope that the findings will stimulate other colleges to seriously contemplate the possibility of moving as one alternative in planning for expansion and redevelopment.

The report itself was prepared by S. B. Zisman, Planning Consultant, San Antonio, Texas, and his associate, Mrs. Catherine Powell. We would like to dedicate it to the President and Trustees of Skidmore College, who had the courage to ask unusual questions and to make vital decisions.

Educational Facilities Laboratories

*See *Space and Dollars: An Urban University Expands*, EFL, 1961, for a report on one which stayed put.



THE PROBLEM

Skidmore College is a privately controlled women's college with an enrollment of about 1,200. It is located on a disjointed, T-shaped campus in what at the turn of the century was a fashionable residential area of Saratoga Springs, N.Y., then a world-famous spa. The campus, near the town's commercial section, is made up largely of former mansions and carriage houses. Only five of its buildings were designed for college use. A major street, which will feed a new interstate highway, bisects the campus.

By 1960, the college's administration and trustees had decided that they could live no longer with the high costs and inefficiencies of the campus as it was. They had a master plan prepared which called for modernization and substantial rebuilding of the old campus at an estimated cost of between $23 and $30 million. At this juncture, the college received as a gift a 1,000-acre parcel of land outside town. The gift led to a serious proposal that, rather than renovate the old campus, the college pick up and move to its new property. This was obviously not a step to be taken lightly. If a sound decision was to be made, answers were needed to a number of basic questions:

What happened when other colleges decided to move?

What effect does a move have on a college's educational program, on its faculty, on its students, on the community?

What advantages of the existing campus might be lost?

What existing shortcomings could be overcome?

What could be done with the old campus?

What would the move cost and how could it be financed?

What might the new campus be like?

These were questions of interest to many colleges in the country. And some of the answers for Skidmore might be of value in the developmental planning of other colleges. For these reasons, Educational Facilities Laboratories, Inc., agreed to cooperate in and support a study, known as the Skidmore Project. The study was to have three phases:

I The problems involved in moving from an old campus and creating a new one were to be researched.

II Educational policies and programs were to be developed as a planning base for Skidmore's new campus.

III A plan for the new campus was to be produced, taking into account the findings in Phase I, the program evolved in Phase II, and the physical characteristics of the new site.

Phases II and III obviously are of interest only to Skidmore. This report, therefore, is devoted to the research findings produced in Phase I.

FOUR CASE HISTORIES — A SUMMARY

Phase I involved case studies of institutions which already have moved. Four such studies were made. Although each

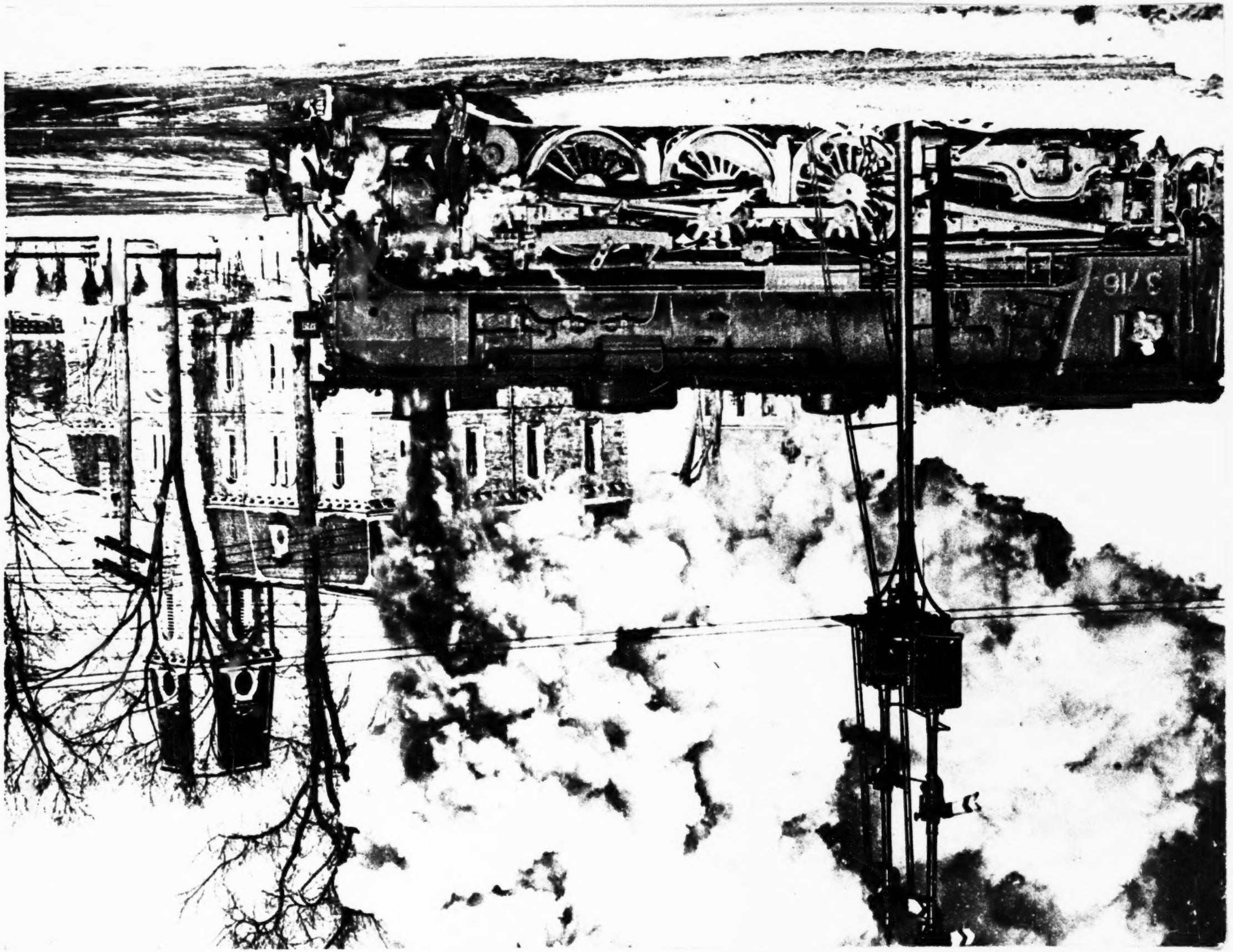
case is concerned with local and individual factors, a number of common basic problems and issues were investigated.

The case studies were all of four-year liberal art[illegible]olleges having some resident students on campus. The schools were selected, however, with an eye to diversity in geographical location, size, and curriculum. They were: Goucher College, for women, in Baltimore, Maryland; Colby College, co-educational, in Waterville, Maine; Harpur College, co-educational, in Binghamton, New York; and Trinity University, co-educational, in San Antonio, Texas.

The general findings of these case history studies are contained in this summary report. Three of the four studies are available at the offices of Educational Facilities Laboratories, 477 Madison Avenue, New York 22, New York.

TABLE OF COMPARISON

COLLEGE	NO. STUDENTS BEFORE	NO. STUDENTS AFTER	ACREAGE BEFORE	ACREAGE AFTER	BUDGET BEFORE	BUDGET AFTER	TRANSITION TIME	DISTANCE MOVED	MASTER PLAN SIZE	ULTIMATE SIZE
GOUCHER	*resident 350 non-resident 350 total 700*	*522 228 750*	*20*	*350*			*14 years date of decision: 1938*	*7 miles*	*1000 resident*	*850 resident 1000 total*
HARPUR	*resident 320 non-resident 480 total 800*	*1000 200 1200*	*5(-)*	*477*			*2½ years date of decision: 1950*	*7 miles*	*800 original 1200 revised re-revised*	*5000 undergrad. 800 masters degree 200 Ph.D. degree*
COLBY	*600*	*1191*	*30*	*600*	*$285,000 (1930)*		*1942-1952 10 years decision: 1930*	*2.5 miles*	*1000 resident*	*1500 resident within 10 years*
TRINITY	*1600 (1946) 50% GI's resident 300 non-resident 1300*	*600 600*	*38*	*107+*	*$759,197 (1951) $1,265,151 (1956) $2,000,000+ (app.)*		*18 months decision: 1944*	*4 miles*		*800-1200 resident 2400 total regular students*
SKIDMORE	*resident 1200*		*30*	*400+*	*$3,070,000*		*decision: 1961*	*2 miles+*		*1500-2000 resident*



In general, the immediate reason for considering relocation was to be found in the character and condition of the existing campus.

Three of the institutions are independent, privately controlled colleges, the fourth, Harpur, is a state-supported institution. The three private schools were founded under the auspices of denominational groups, although only one of them still receives church support. The institutions today range in size from 800 to 1,400 students. At the times each decided to relocate, enrollments ranged from 600 to 1,000. Each new campus was designed to accommodate at least twice the existing number of resident students; in two cases, residents were a very small proportion of the total student body.

Three institutions moved from the built-up or downtown areas to suburban locations. One moved closer to the center of its city, although to a less developed area. The distances moved ranged from one and a half to seven miles.

The transition period, the period between the time construction was started on the new site and the total abandonment of the old campus, varied from 18 months to 14 years.

Three factors combined to make the old campuses untenable. First, the structures were in large part obsolete and inadequate. Second, the property of the institution was not a continuous whole, but a series of scattered parcels. And third, surrounding land uses made the acquisition of more land either undesirable or impractical.

The first two factors created an environment which was inefficient, difficult and expensive to operate, and often unpleasant but, by themselves, these factors did not necessarily dictate relocation.

A successful program of modernization and expansion might well have been carried out in each case (two schools considered that alternative) had it not been for the character of the neighborhood, including street and traffic problems. In two cases, the neighborhood was considered unsavory and detrimental to the health and safety of the students. In the other two, the type of land use was merely disturbing and not conducive to the maintenance of an academic atmosphere. In every case, however, the high cost of surrounding land made its acquisition economically impractical.

If, in any of the cases studied, there had been vacant land available at reasonable prices, old buildings could have been replaced with new ones without exorbitant expenditures and without drastically interrupting campus operations. Dangerous traffic situations could have been eliminated.

The problems posed by the old physical plant might well have been strong enough in combination to make relocation necessary.

The specific reasons behind the decision to relocate a college campus varied from case to case. Harpur, for example, was absorbed into the system of state-supported higher education. It was destined for tremendous expansion to an extent impossible on its existing site.

Goucher found its environment so detrimental that it feared a decline in its student body.

Colby was warned in a state survey that it could not hope to continue to carry its full share of the load unless it moved to a new site.

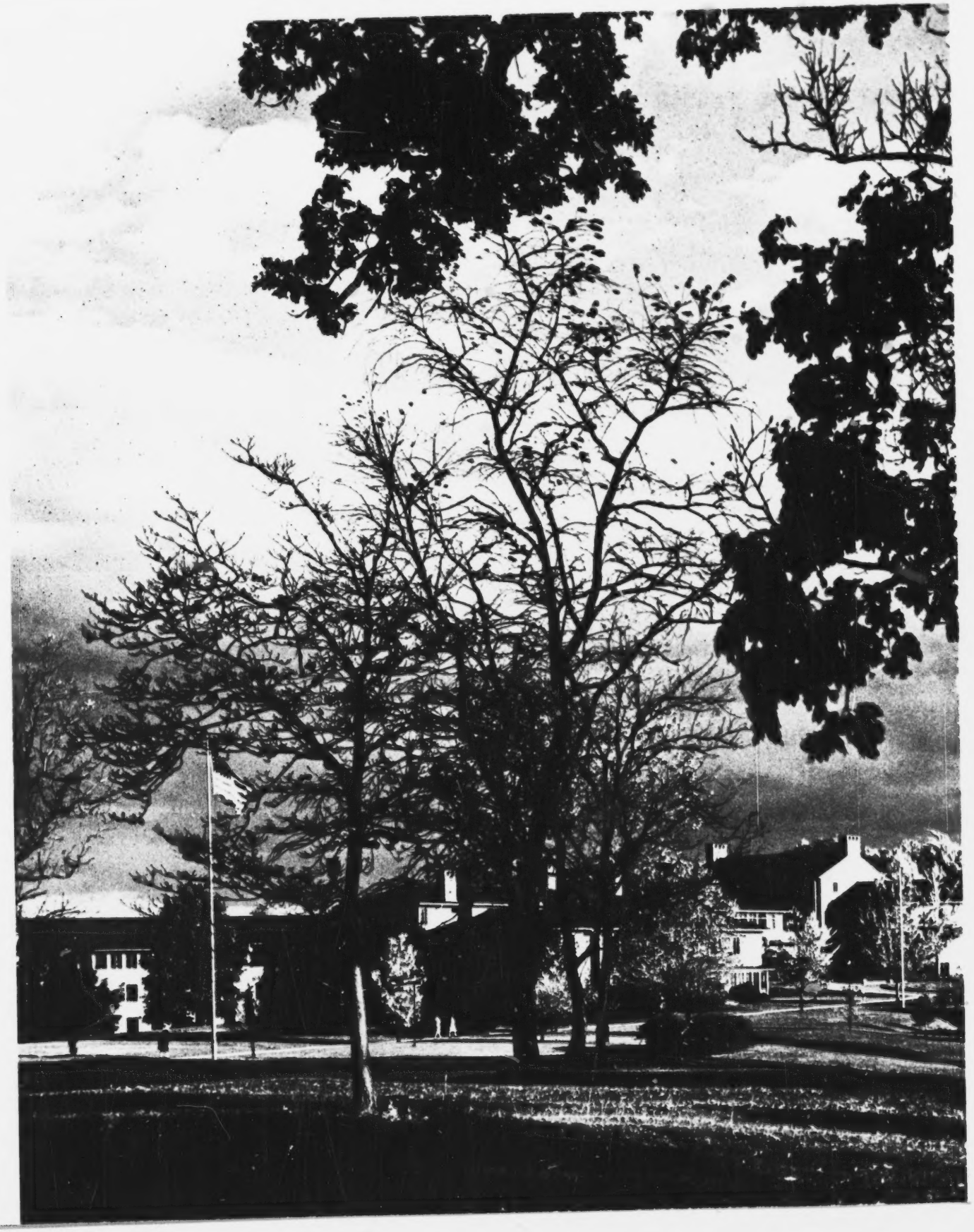
Trinity University, an institution with a history of moves from one hand-me-down campus to another, wanted a site more suitable to its self-image and to its plans for expansion.

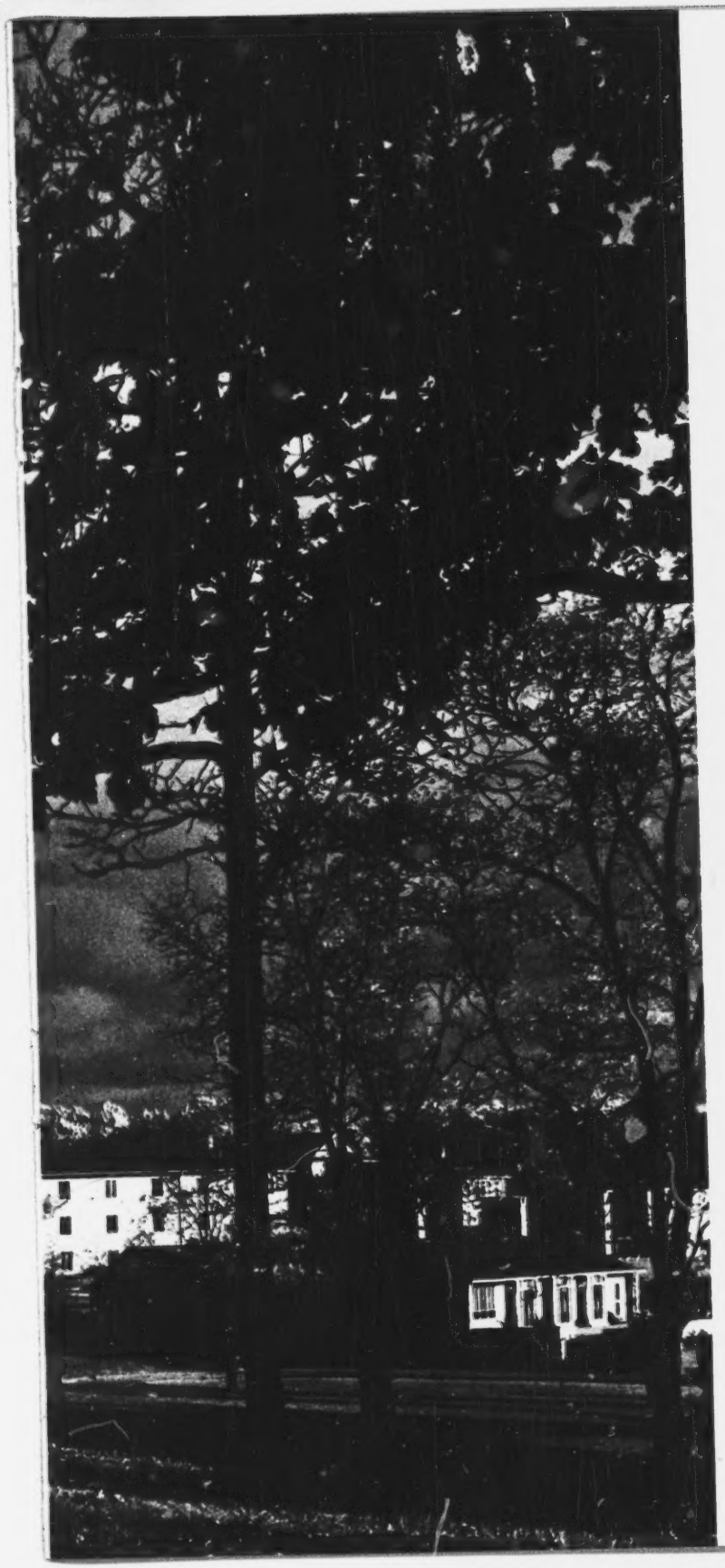
In all cases studied there was greater reaction to the effect of the existing campus on the students and the public than to its inefficiency. This feeling stemmed from the lack of a coherent campus. At one of the colleges, an administrator called it a "lack of feeling that there was a college." Another said:

"The generally shabby, disjointed, and unorganized appearance of the campus made student recruitment progressively more and more difficult."

In other words, the image that each institution had of itself as an environment for effective higher education was seriously undermined by its physical situation.

Two of the dormitories on Goucher's old campus in downtown Baltimore (below), loomed like stray tenements, beset by exhaust fumes, soot, disorder, noise, and undesirable neighbors. Students were beginning to shy away from such an environment, despite the college's reputation for academic excellence. In contrast, the trees and rolling hills of Goucher's new campus (right) north of Baltimore have helped to attract students from a wide geographical area.





WHAT KIND OF NEW SITE?

The reasons for moving were mainly an unwholesome environment and lack of room. The primary qualities of a new site included 1) adequate space and, 2) a beneficial or wholesome environment, a "satisfactory neighborhood," as one college put it. In addition, and not necessarily in order of importance, there were the following criteria: accessibility, adequate drainage, opportunity for faculty residence, reasonable cost, and elevation.

The criterion of elevation is particularly interesting. Each of the colleges studied chose a site with considerable elevation in relation to its surroundings. No reason was given. Perhaps it was the combination of seclusion and yet commanding outlook. Perhaps it was a matter of repairing the tarnished self-image, representing the opposite pole to the feeling of being buried in a conflicting and undesirable neighborhood. One institution was offered 200 acres of free, flat land. It rejected the offer in favor of 107 acres, with magnificent views, which had to be purchased.

No college included a limit on the distance from the existing campus to the new site. Two colleges moved seven miles; the other two, less than five miles.

NEW CAMPUS? NEW PROGRAM?

The administration at each of the four colleges considered that relocation was difficult enough without taking on the added complexities of major curriculum revision. All agreed that a careful analysis of the curriculum should be made before relocation so that courses no longer effective would not be built into the new campus. But, it was further agreed that the building of a satisfactory new campus was not necessarily dependent upon a newly revised curriculum.

This opinion was grounded in the fact that curricula are continually in a state of flux – or should be – and that revising the curriculum in order to build to suit might have undesirable effects. A new physical plant built to the specifications of a particular curriculum might tend to calcify that curriculum against further changes and could be an extravagant gesture.

In only one case was substantial revision in academic program incorporated into the construction of the new campus. And that involved only the addition of a required physical education program which had been impossible on the old campus because of a lack of facilities. Although this was a

revision in curriculum it was not considered a revision in policy.

It was pointed out that the very process of relocation will undoubtedly cause or inspire changes in attitudes, teaching methods, schedules. Just as it might be folly to attempt a complete revision of educational policy at the time of relocation, it would also be unwise to build a duplicate of the old physical plant on a new site. Not only were out-dated courses discontinued at each of the colleges but new insights were gained into the workings of the institution.

Moving involves continually changing circumstances in class size, meeting place, equipment, etc. One might suppose that teachers would despair, complain, resist, or even obstruct the relocation process. In actual fact, in every case studied, the opposite occurred. The impact of relocation was not one of chaos and destructive interruption. It was, rather, one of new vigor to meet a challenge. Naturally, there was confusion, some discomfort, and some complaints. In the four colleges, however, these occurrences were so few as to be regarded as insignificant.

One president described the attitude of the teachers as born "of a sense of pioneering." The entire atmosphere of the college was pervaded by this feeling of excitement and accomplishment. It overpowered annoyances which in a less stimulating atmosphere might have been not only noticeable, but distinctly disrupting. Another president remarked that the positive "effect (of relocation) on morale was pronounced." All were agreed that the relocation process occasioned changes which could not have been completely foreseen. None would advise an attempt at major policy revision during the relocation process. But, having lived through the remarkable change in morale, each agreed it might have been possible.

PLANNING THE MOVE

THE MASTER PLAN

Each of the colleges invested in a master site plan prepared by a professional and based on a program compiled by the administration of the college.

A master site plan is a long-range guide to development. Colby has been under development for 31 years, Goucher for 23. A comparison of the original plans for their new campuses with the plans as they actually materialized indicates that the basic concepts have been followed but certain changes have been made.

The original plans were based on a careful analysis of the philosophy and aims of the colleges, which have not changed over the years. But means of implementing that philosophy have changed. Colby originally intended to construct a separate building for each of the areas of academic instruction – i.e., Physics, Chemistry, Biology. The shift to divisional academic grouping – i.e., Natural Sciences – which has gained headway since the 1930's, has altered the thinking of many college administrators. In Colby's case the shift is reflected in what was built. Similarly, concepts of dormitory living have changed quite substantially over the last several years.

While a certain arrangement of buildings (or within buildings) probably cannot cause an educational institution to produce positive educational and social effects which are not already part of that institution's aims, the arrangement can aid that process rather than hinder it.

If the institution makes a sharp distinction educationally between the liberal arts and certain technical fields, that distinction will be abetted by a physical separation of the structures which house the different activities.

The master site plan should take into account the institution's ideas about living accommodations in relation to instructional facilities, as well as to

athletic facilities, and to those activities of the college which are publicly oriented. And it must provide accessibility to and circulation among all elements of the campus.

Trinity University had two separate master site plans prepared for its new campus. At a crucial point in its relocation planning, Trinity's Board of Trustees decided that the first plan prepared for the new campus was unworkable, and in fact did not at all express the educational philosophy of the college. A new plan was prepared; and it is this plan which has been followed in the development of the new site. The first plan was not based upon a careful consideration of Trinity's own educational philosophy but rather on an abstract notion of the philosophy of liberal arts education in general. The Trinity administration explained its willingness to start over again: "A master site plan should never be considered as an end in itself. It is a very important means to an end, but it is only a means."

Harpur College's relocation study provides evidence of the value of time spent planning. The decision to relocate was made in 1948. Construction of the new campus did not start until 1958. In other words, 10 years of planning preceded the relocation. Harpur's administration felt, naturally, that 10 years was a long time – it made the 2½ years of transition seem much longer than it actually was. Nevertheless, the administration felt that the procedure was sound in every respect, that it has enabled the college to avoid many problems, and that, were the college again faced with the problem of relocation, it would follow the same course.

In each case, professional advice and guidance was obtained for a detailed study of the type and amount of space to be provided on the new campus.

The type of space is related to educational philosophy and is the means of implementing it. For example, there has been a much greater emphasis in recent years on independent study at all levels. However, if the college's classrooms are all designed to hold 30 or more students, and its library designed to hold books, not students, the facilities can frustrate the faculty's desire to encourage independent work. On the other hand, the library carrel and library seminar room foster independent work. The recent emphasis upon smaller study groups complemented by larger lecture sections has substantial implications for the design of facilities.

Changing educational programs require types of space and equipment not ordinarily present in older buildings. At right, small independent study space for using audio equipment at Harpur College.

The discussion group or seminar of 6 to 12 students, can meet in a room which holds 30 students. The appointments of this room, however, are likely to be desks and straight chairs or tablet arm chairs which focus on the teacher's desk at the head of the room, rather than comfortable chairs placed around a table in an arrangement conducive to informal discussion among equals.

Then, there is the related question of the amount of such spaces required. Most colleges do not use what space they have efficiently. The typical small liberal arts college utilizes its classrooms 40 per cent of the hours in which classes are held and its laboratories only about 25 per cent of those hours.* Each classroom is empty for more than half of each week. Scheduling of classes on an efficient basis may considerably reduce the amount of space needed.

A PLAN FOR TRANSITION FROM OLD TO NEW CAMPUS

The plan for the new campus should be complemented by a plan of quite a different kind: the transition plan. This plan requires analysis and projection of the stages of construction on the new site, the disposition of the abandoned facilities on the old, and the operation of a split campus, including the problems of transportation between the two locations. The transition plan should include time and cost schedules for construction and financing.

The study of the case histories leads to these conclusions:

A transition plan is essential to smooth relocation. A sound transition plan may reduce considerably the costs of operating a split campus.

The transition plan should be given long and careful study, since it may pose complex alternatives. The transition program should be developed by policy level personnel in consultation with the college architects and planners. These professionals can contribute methods and practices that will aid in achieving immediate goals while avoiding future confusion and expense.

The transition plan should, if possible, be prepared by the same people who have prepared the master plan and who are to design the new buildings. The plan is closely tied to methods and timing of construction as well as specific plans for particular buildings. It may involve temporary use of both old and new facilities.

The transition plan may require some immediate sacrifices in favor of delayed permanent advantages.

Of the four colleges, only two actually had a transition plan. Significantly, the transition period at these two colleges was far less difficult, much shorter, and less costly than at the other two.

WHO MAKES WHAT DECISIONS?

Decisions basic to the future operations of an institution tend to be made by the Board of Trustees and administration alone. The studies indicate that these "basic decisions" include the following: the size of the student body to be accommodated; the probable trend of the academic program or curriculum (such as whether or not the institution may someday include a graduate program); and the nature of the academic program (it may be largely traditional in concept or new methods and new programs might be encouraged). These are questions which can be answered only by those persons responsible for the total nature of the institution and its reputation.

Decisions concerning the over-all physical character of the institutions also were made by the administrators and trustees in consultation with the architects and planners.

What is to be dominant? Is the general layout to be formal or informal? In short, what is to be the "feeling" of the new campus?

If the curriculum is split into divisions, should this be expressed in a separate structure for each division? Or should the unity of the total educational program be expressed by simply providing general classrooms without special designations. Perhaps the phys-

*See: *To Build Or Not To Build*, EFL, 1962

ical distinctions should be according to function: all lectures in one building, laboratories in another, seminars in a third, etc.

Where should the dormitories be situated in relation to the athletic facilities? In relation to the main entrance? To the dining facilities?

The answers are based upon the educational philosophy and academic program of the institution; the desired aesthetic appearance of the campus; the characteristics and economics of the particular site.

When major questions have been settled, there are many second-level decisions to be made. These concern the detailed planning of the different facilities. Only at this level were the faculties of the four colleges engaged in the planning process.

In some cases, a faculty committee was selected by the administration, or elected by the general faculty, to serve as a permanent advisory group. Elsewhere, special committees were formed for specific buildings or groups of buildings. In other instances, the general faculty was invited to submit suggestions which were summarized by a committee and then discussed with the Board, administration, and architects. In still others, the preliminary plans were drawn by the architects in consultation with the administration, and then submitted to the representative faculty for review. Finally, a combination of these procedures was not exceptional.

The time faculty members are able to devote to this process will be important in choosing the method. In one case, the detailed planning of the first buildings was initiated with a faculty committee. But none of the committee members was relieved of any teaching time.

Experience led the college to modify this procedure in planning for subsequent buildings. Now, because of a policy decision to expand substantially the capacity of the new campus, there is a full-time director of planning. He is advised by a committee of three faculty members, one from each curriculum area. Each of these faculty advisors is responsible for consultations with other faculty members of his division. Each is relieved of one-quarter of his teaching load.

In every case, however, decisions of a policy nature were kept at the policy level. As one dean put it: "The faculty has, necessarily, a narrower perspective in relation to the whole college than does the administration. They (faculty members) are apt to look critically only at their own needs and problems and tend to put these first."

There was no evidence of ignoring the faculty at any level. Every college administrator has ways of sounding out faculty opinion, and these may be sufficient to assure that policy-level decisions will be acceptable.

The studies indicated, moreover, that the faculty should be involved at the detailed planning level. It is closer to the teaching process than is the administration and is in a position to make pertinent suggestions. Furthermore, the faculty members will have to use the new facilities. This involvement in operational planning probably will ensure a better facility and preclude later complaints.

WHAT TO MOVE FIRST?

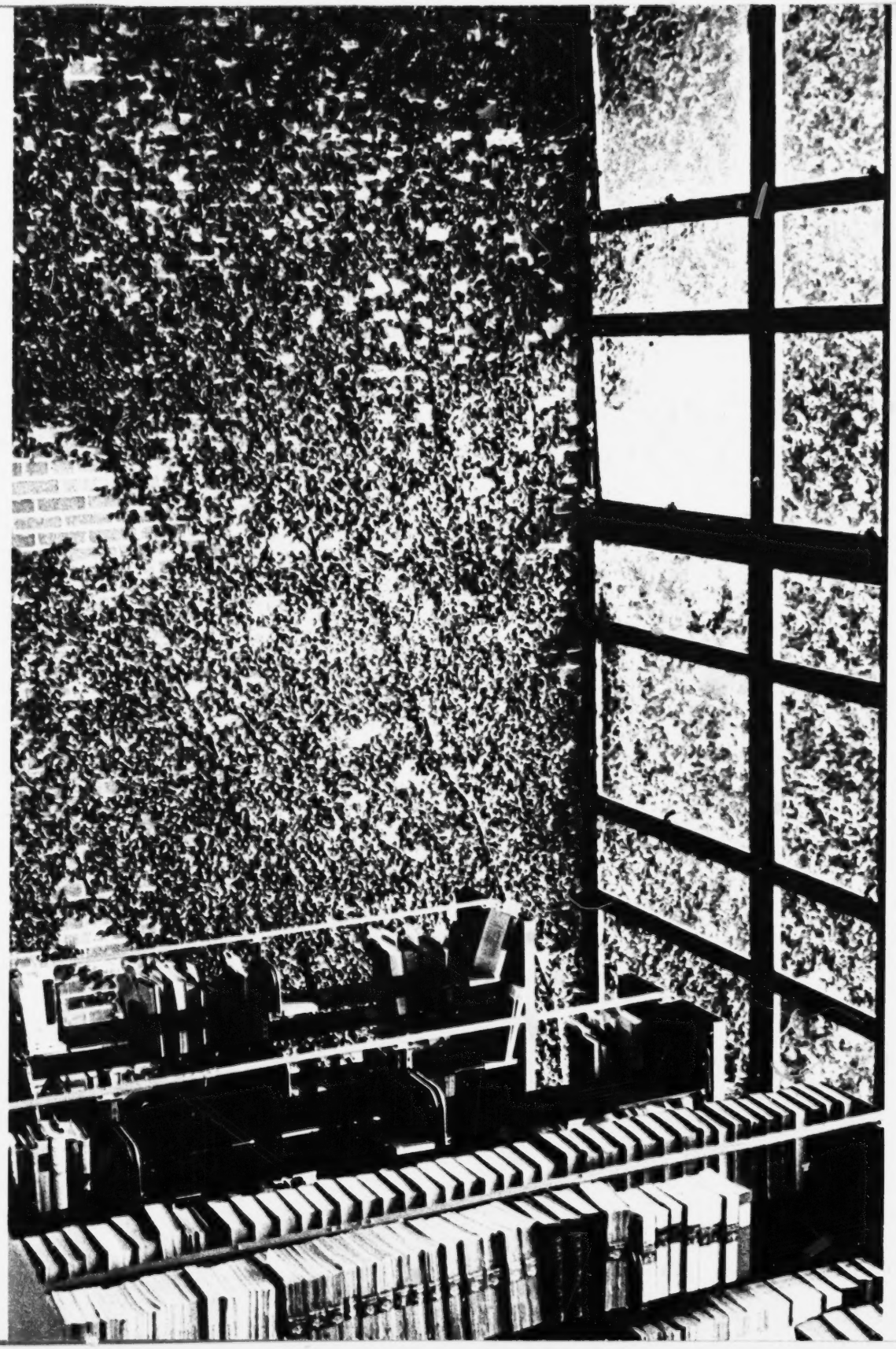
Each of the four institutions followed a different procedure according to priorities established for its own program. In two cases, dormitories were the first buildings on the new campus. In another, the athletic facilities were first. In the fourth, it was a classroom-administration building.

In three of the four cases, the projects receiving top priority for the new campus were those which fulfilled urgent needs on the existing campus. Each of these colleges built first what was most needed.

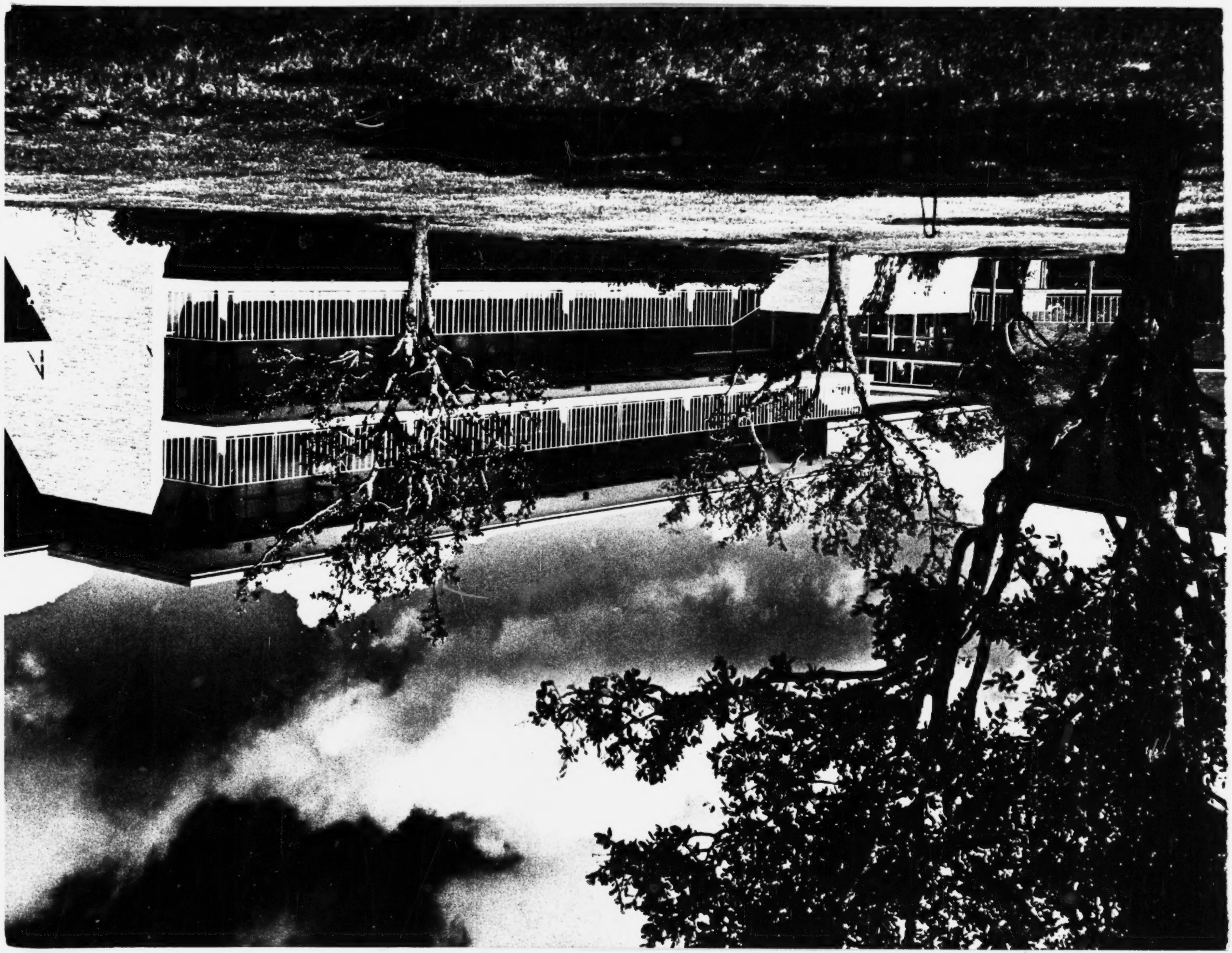
In the fourth case, Trinity, priorities were based upon what the administration considered to be most important for the establishment of the new campus. Thus, while science facilities and residence space were more urgently needed on the old campus than anything else, the first project on the new campus was a classroom-administration building.

In the words of the dean, who at the time was acting president: "The classrooms, the administration, the library, compose the heart of a liberal arts college. You can always make other arrangements for living accommodations but you cannot make other arrangements for teaching space."

The next project was a very small dormitory for men. At the time of moving, the resident men were housed in rented facilities not far from the campus. All resident students were fed in a restaurant during the first term on the new campus. They were transported by bus to and from the rented facilities and the restaurant.



A corner of Trinity University's library, right, which was completed in 1952, before the end of the first term on the new campus. The Music Center, far right, is the first unit of the college's new Arts Center, which will include an art building and a large auditorium.



It is true that Trinity had a very small resident population. It is also true that the old campus had been sold and delivery promised on a specific date. The result of Trinity's priority choice, however, was to transfer all attention to the heart of the new campus even though interim housing measures were necessary.

Other temporary measures had to be taken, and for 18 months, Trinity operated its new campus with some unavoidable confusion and with inadequate space. The administration reports that, when the deadline for moving from the old campus approached, the question was asked: "Can we possibly operate this college with what we have on the new campus?" All felt that, if it was to be operated as usual, the answer was "no." But they moved anyway. The psychological uplift in occupying a new site was strong enough to justify the procedure.

The experiences of the four institutions indicate that the first buildings on the new campus should be chosen according to what is needed immediately, weighed against what will have the greatest value in easing the transition period. Of the four cases studied, two experienced transition periods of less than 3 years. The other two operated both campuses for 12 to 15 years. Trinity, with the least assurance of funds, experienced the shortest – 18 months – and smoothest transition period.

DOUBLE TROUBLE

Other than financing a new campus, the most severe relocation problems stemmed from the necessity of operating two campuses at the same time. Two of the colleges had originally hoped that this situation could be avoided. The intent was to build enough of the new campus to contain all operations before moving any single activity. In each of these cases the resident student body was small, and planned expansion was to occur after the institution was operating on the new site. However, the temptation to occupy finished buildings was too strong, and neither college waited until the new basic campus was complete.

The practical problems in operating two campuses included transportation between the two sites, duplication and temporary use of facilities, and the idleness of parts of the physical plant on either or both campuses. Some of these problems can be measured in terms of money, although it is easier to isolate some costs than others. The expenditure for transportation between the two campuses, for instance, is easily ascertainable. The costs of duplication are less easily isolated and costs arising from idleness of parts of either physical plant (insurance, depreciation, taxes, etc.) are rarely calculated.

TRANSPORTATION

There was a wide range in transportation costs. Trinity, whose transition period lasted only 18 months, spent less than $3,000 on this item. However, since 80 per cent of the student body was nonresident, there was the problem of scheduling so that commuting students did not have classes on both campuses the same day.

Harpur spent $100,000 on transportation over a 2½-year period. The college owned one bus and hired others at a cost of $40,000 per year. Goucher, over a 14-year transition period, spent almost $200,000. The distances moved by Harpur and Goucher were the same, and the difference in the number of resident students was only 30.

Of course, the rate of construction on the new campus will influence the need for transportation. Harpur's construction rate was rapid, but it encountered relatively high transportation costs over a short period. On the other hand,

there may be a tendency to schedule development so as to keep annual transportation costs to a minimum, thereby extending the transition period. The ideal solution obviously would be one of rapid construction, short transition, and low transportation costs.

DUPLICATIONS

The possibilities of duplication and temporary use of facilities are almost endless. It may be necessary, for example, to operate heating plants on both campuses. If the old campus is heated through a central plant it will be necessary to operate the plant throughout the time any part of it is occupied. However, fuel costs will decrease as buildings are vacated.

At the same time, occupied portions of the new campus also will require heating. If the new campus is also to be heated from a central plant, further complications may arise. Harpur installed temporary heating facilities because the first structures ultimately were to be heated from a central plant. But, Harpur's predicament need not arise. The central plant can be one of the first structures on the new campus, and each building can be connected to it upon completion. Decentralized heating gets around this problem and offers a number of other advantages as well.

CONVERSIONS

There are costs of conversion or reconversion when duplication and/or temporary uses occur. Goucher has spent a considerable amount of money in this way. One building on the new campus has been converted twice. It originally was built as a bus garage, converted two years later into a maintenance office and shop, and finally, after another seven years, into a fine arts studio.

It may also be necessary to resort to the temporary use of a building which is only half completed. It is extremely difficult, in Goucher's experience, to complete that building by adding the necessary floors or wings. Colby's approach to temporary use was different: it converted an inexpensive airplane hangar into a temporary gymnasium.

COSTS

Taking each of these possibilities separately, costs likely to arise from simultaneous operation of two campuses may seem exorbitant. However, when compared with the total investment on the new site, they appear less frightening. Harpur's extra costs during transition amounted to approximately 0.7 per cent of the total amount invested in the new campus. At Trinity, the amount was 1.6 per cent; at Colby, 4.4 per cent; and at Goucher, 6 per cent.

It is quite clear that shorter transition periods are less expensive than longer ones. Trinity's low cost, of course, can be partially accounted for by the very small number of resident students involved. Harpur's rapid transition was due in part to the fact that funds were available, and only the tempo of construction delayed the transition.

INTERNAL ADJUSTMENTS

Not all the problems of transition are practical. There are others that are psychological in nature where the costs cannot be measured.

If some of the students are housed and taught on the new campus, while others are housed and taught on the existing campus, feelings of jealousy may arise. Students and faculty on the old campus may consider themselves tag ends of an old order and consequently may threaten the unity of the institution.

Problems such as this may be absolutely unavoidable but a well-planned transition period may preclude many of them and considerably soften the impact of others. Significantly, in none of the cases studied was there a report of profound disturbance, even though two of the colleges had rather ragged transition periods. No specific formula

for transition that will avoid all problems can be prescribed.

MOVING AND MONEY

It is difficult to make comparisons of total cost among the four cases. Construction was begun at different times (Colby, 1931; Goucher, 1942; Trinity, 1949; Harpur, 1958). Methods of financing differed greatly. Since Harpur's capital funds were provided by the state, it is not included in this discussion.

Most important, the decision to relocate each of the three colleges was made without positive assurance that funds for the new campus would be forthcoming. Each of the three colleges has stated that the most severe relocation problems stemmed from the lack of funds and attendant insecurity about completing the job. How each finally managed to build a new campus is discussed in more detail in the individual case histories.

Each college hoped to recover the greater part of its investment in the existing site, but only Goucher was able to realize a significant amount. The very characteristics of surrounding land use which forced Goucher to relocate also contributed to the value of the old campus. The college was able to sell portions of its old campus for reasonable prices. Of the amount invested to date in the new campus, 9 per cent was acquired in this manner. Goucher also was able to sell excess portions of its new site for reasonable prices and, to date (1961), has realized another 10 per cent of its total expenditure for the new campus.

Neither Colby nor Trinity could do nearly so well. Trinity received an amount equal to 2.3 per cent of its total investment by selling the old campus to a single buyer for use as a seminary. At the time, the price offered was considered too low. But it was accepted because of the uncertainty of other, better offers, and because the agreement was immediate cash for delivery of the site at a later date.

Colby put its old campus on the market as a single parcel for an asking price of $500,000, one-half the book value. It has found no single buyer and consequently has sold portions to separate buyers at very low prices. To date, an extremely small sum has been recovered.

Colby and Trinity originally considered that a fair price for the old campus was essential to the development of their new campus. But each has experienced a successful relocation without receiving that price.

In the Colby case, the interruption caused by World War II and subsequent increases in construction costs, if foreseen, might have deterred the college from relocating. On the other hand, the actual cost as the campus develops may be far below original estimates. Here the case of Trinity is relevant. The first plans for the new campus proved so expensive that they were scrapped in favor of an entirely new scheme. Costs were cut by about two-thirds.

The two colleges experiencing the most difficulty in developing a new campus, Colby and Goucher, relied almost entirely on gifts and fund-raising campaigns in raising capital. Goucher has not borrowed construction funds in the commercial money market. But it has made loans from its own endowment funds to the construction fund for the erection of self-amortizing buildings such as dormitories. Colby stayed out of the commercial money market until recently, when a bank loan was negotiated to finance completion of the women's dormitories, begun in 1938. Colby's administration has stated that, given the same job to do again, a more realistic policy would be followed. Colby and Goucher have yet to avail themselves of Federal funds under the college housing program of the Housing and Home Finance Agency.

An almost opposite extreme can be found in the case of Trinity. As soon as

the first structure, a classroom-administration building, was complete, a mortgage was secured and the funds applied to the construction of a library and a student union. When HHFA loans for construction of dormitories were made available, Trinity took advantage of them. Trinity's campus is as complete today as Colby's or Goucher's even though Goucher's has been under development twice as long as Trinity's.

Financing practices differ among institutions and change with time. When Colby and Goucher began the construction of their new campuses, HHFA loans did not exist. And it perhaps was difficult at the time for an educational institution to secure a commercial loan. There is some evidence in parts of the country that loans to institutions have become more easily available. Considering that bankruptcies are rare among educational institutions, it seems that this type of financing should be possible. In none of the cases studied, in fact, in no relocation case which has come to our knowledge, has there been any question of bankruptcy or serious financial difficulty.

New sources of funds from foundations and industrial corporations may be forthcoming, and new state and federal aid programs may be inaugurated. Another possible method has been proposed recently by the University of Chicago – the issuance by an institution of its own revenue bonds, backed by income from fees.

Finally, it should be pointed out that any cost estimate for building a new campus may seem enormous when the total expenditure is considered as one lump sum. In actual practice, of course, the total amount of investment in the new campus is never in hand at one time.

In general, the fact that all necessary funds were not readily available did not deter a college from relocation when it appeared to be an excellent solution from every other viewpoint.

INTERNAL EFFECTS

There are other internal problems in relocation not directly related to physical facilities. These concern the faculty and students.

The studies have furnished little material on these problems other than the reports of favorable psychological effects. There seems little doubt that relocation has opened new doors to educational opportunities. There is, however, concern over the effect of moving on faculty growth and salaries. There were indications that the Colby faculty suffered some reduction in salary during part of the transition period. Whether this was directly a result of the relocation or occasioned by more general economic conditions is not entirely clear.

In the three cases other than Colby, the number of faculty members increased as relocation made expansion possible. Each of the four colleges sought funds for faculty salary increases simultaneously with their campaigns for construction funds. An extended transition period may be the price of maintaining realistic increases in faculty salaries.

EFFECT ON THE COMMUNITY

Previous sections of this report have dealt with relocation problems centering around the institution itself. Little attention has been given to the effect these problems and their possible solutions might have on the community. Material on this subject is neither abundant nor detailed.

The "town and gown" relationship occurs at two levels. On the one hand, there is the communication or interaction which concerns the public life of both the institution and the community. This includes cultural events sponsored by the college, the commu-

nity, or both. On the other hand, there are the private lives of the campus and the community. In this sphere, interaction is less common and occasionally less happy.

When Colby College was looking for a site, it received an offer of an estate in Augusta. The citizens of Waterville were alarmed at the prospect of Colby's removing to the state capital. They raised enough money by public subscription to donate to the College a 600-acre site in Waterville. Subsequently, public monies were spent to improve the site and provide some utilities, such as water lines, for the campus.

Goucher, moving away from the center of Baltimore to the rural-suburban fringe, felt a loosening of its ties with the life of the City. In 1949 it established a Board of Overseers composed of civic and business leaders from the Baltimore area. The administration states that this move was a significant factor in helping the College gain respect and prestige in the community.

Much of Trinity's success in developing its new campus must be attributed to the University's consciousness of its community and a desire to foster a mutually advantageous relationship. San Antonio's business and civic leaders found Trinity's original site in the City. And the City government was equally helpful in securing the present site. Later, 46 moving vans and 72 crewmen were supplied without charge by the Motor Carriers Association of San Antonio. The saving to Trinity amounted to approximately $11,000.

When a move occurs, disposal of the old campus inevitably affects college and community alike. The college is concerned with recovering as much of its investment as possible. The specific use to be made of the old campus may pose a question of very great importance to the community.

In Goucher's case, the factors which made the original campus no longer suitable were the very factors which contributed to its ready conversion to other productive uses. Trinity University was fortunate in finding a buyer for the total property who wanted to continue the facility in institutional use. Disposal of Harpur's campus was arranged by the State; it was sold to the local public school district.

Colby was not so fortunate as the others. The site is jammed between a railroad yard and the river, which is lined with old factories. It is an undesirable area for educational or institutional purposes. The ultimate disposal of the site, in low-priced parcels for such uses as garages and filling stations, has benefited neither college nor community.

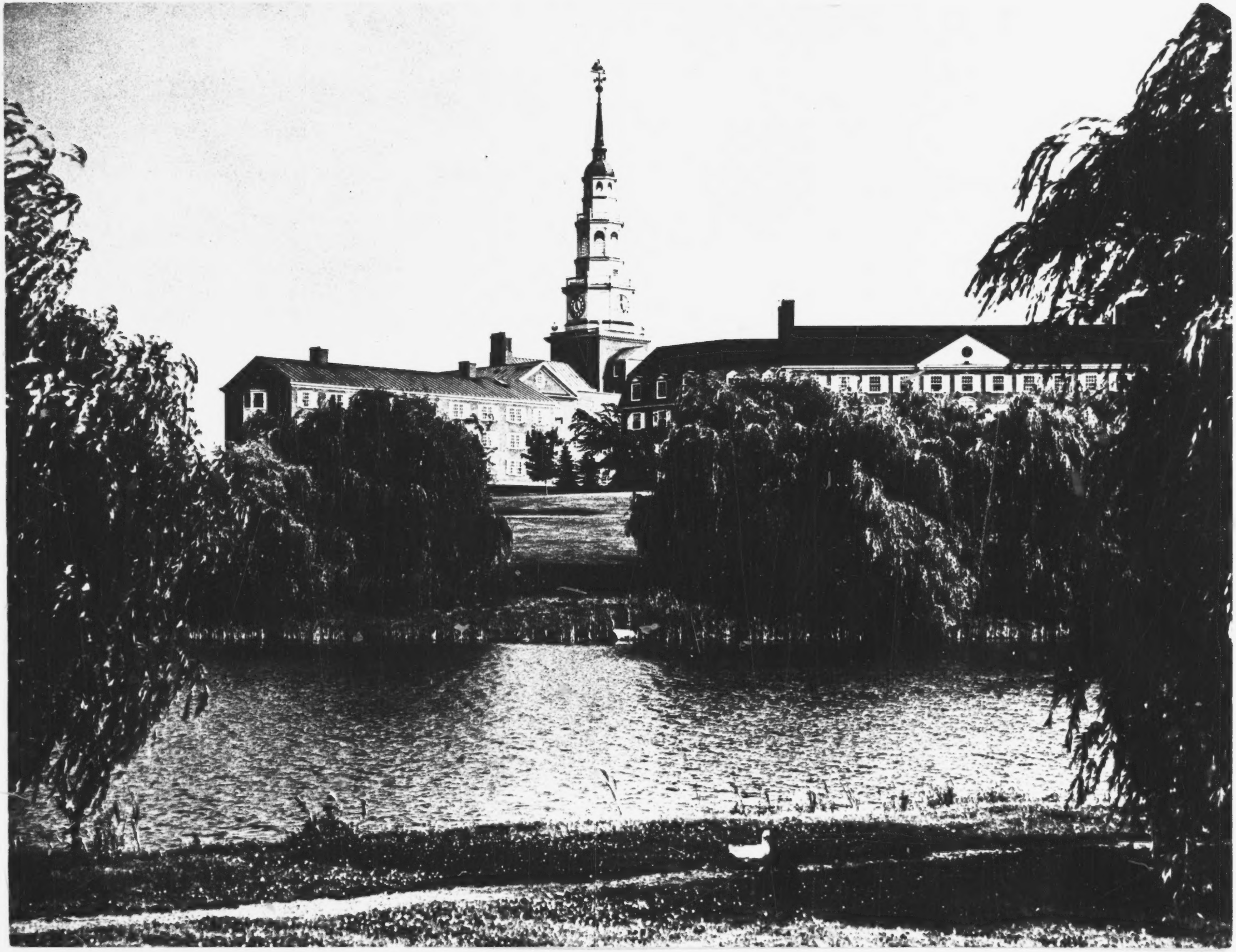
THE OLD AND THE NEW

When a college has decided that it will modernize or expand, it has two basic choices: rebuilding on the existing site or building on a new site.

Rebuilding may have certain immediate financial advantages. There are bound to be some buildings which will not need replacement. Others may lend themselves to satisfactory modernization. An entire new site will not have to be acquired. Further, the difficulties and extra expense of operating a split campus may be avoided.

Educational advantages are less clear, particularly for small liberal arts colleges. It may happen that an important attraction of the college lies in traditions which are inextricably bound up with a specific site and buildings. Yet educational excellence would appear to depend more upon the curriculum, faculty, and excellence of facilities. The

The library tower at Colby College rises above a willow-bordered pond, haunt of ducks and meditative students. The quiet beauty of the new campus is in sharp contrast to the dismal surroundings of the old. There, the dominant view was of abandoned warehouses across a polluted river. The academic atmosphere was shattered repeatedly by the rumble and rattle of freight trains crossing the college's doorstep.



advantages of remaining on the old site, then, appear to be largely financial in nature.

The case histories, however, suggest that building on a new site may prove less costly in the long run. Purchase of land adjacent to the existing campus in many cases is more expensive than purchasing a much larger plot of less costly land. It may cost less to build on a vacant site than to demolish or renovate or maintain old buildings. Temporary relocation may be necessary during alterations or demolition. Remaining on an existing site does not eliminate transition problems.

More important than costs of construction are costs of maintenance and operation of the entire plant. To take one case, Goucher found that operational costs per student and adjusted expenditure fixtures were significantly lowered. In addition, the maintenance staff was decreased at the same time that the instructional staff and the student body increased. (Costs per student for maintenance rose because of a great increase in acreage and athletic facilities, but these costs reflect policy decisions rather than results of moving.)

Even if a college were to completely replace all old and inadequate structures with new and adequate ones, certain site deficiencies could never be corrected. The closing of publicly dedicated streets is extremely difficult in most built-up areas. Where the creation of a suitable college environment requires the closing of more than one such street, the likelihood of doing so is slim. It is almost impossible to close major streets.

Furthermore, a rebuilt campus at the existing site might always suffer from functional disorders – a gymnasium in the wrong place, one lone dormitory left at the fringe, a classroom in an inconvenient location. Problems such as these need never occur on a new site.

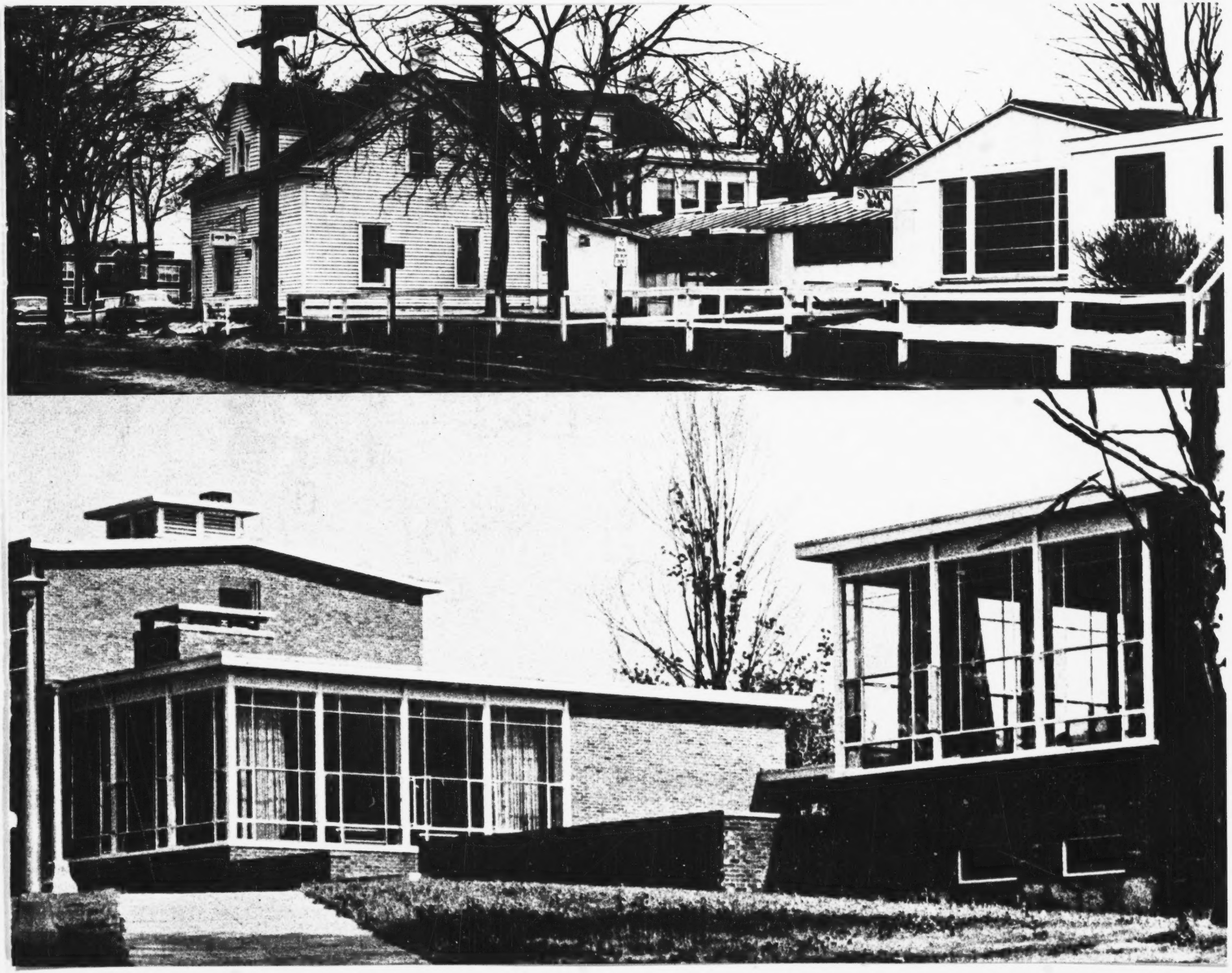
Even more important are the educational advantages of relocation. A new site can offer almost complete flexibility. It makes possible almost any teaching method the administration believes will add to the academic quality of the college.

And, from the material studied, there is no doubt that the college will grow, not only in size, but in academic excellence and public esteem. The records of the four colleges since relocation offer eloquent testimony to this fact. People who had never heard of the college became interested in it. The very fact of relocation indicates a vitality and strength of purpose which seem to be infectious. The president of Goucher put it this way:

"The drama of the move and the financial difficulties associated with it attracted community interest and support which we doubt would have been forthcoming if we had stayed in the same location. It was a case of an old Baltimore institution which, because of its location in a rundown area, had declined in quality in the eyes of many Baltimorians. The move and the publicity attendant to it created a new interest in the College and a new sense of respect for it."

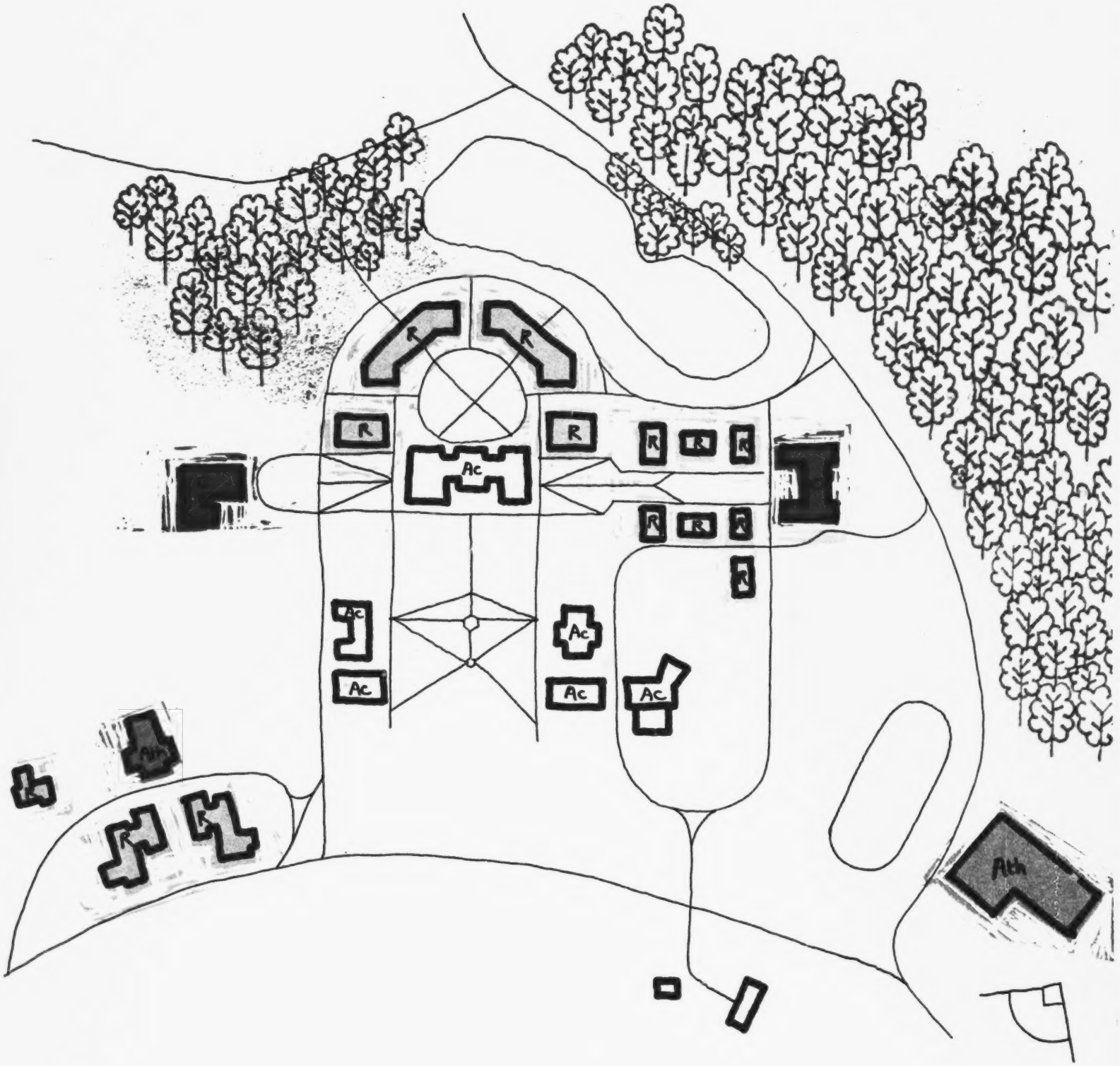
Again, relocation may appear to be a drastic—in some eyes, extravagant—solution to a college's problems. But these case studies suggest that, providing conditions warrant it, the drastic solution may be the best one. And the studies indicate that, by uprooting and moving the campus, colleges may gain much more than bigger and shinier buildings and spacious grounds. By moving, these colleges have opened new doors, discovered exciting new opportunities in their search for a better educational program.

Harpur College got its start in life as a temporary, two-year college operated by Syracuse University. It was housed in five buildings converted for "campus" use. The cluster of buildings, above, right, which provided student services reflect the makeshift, inadequate nature of the old campus. In contrast, there is a feeling of coherence and utility about the new campus, as is evident in the housing units, below, right. The new campus is to become a major center of the State University of New York and is planned for an eventual enrollment of 6,000.



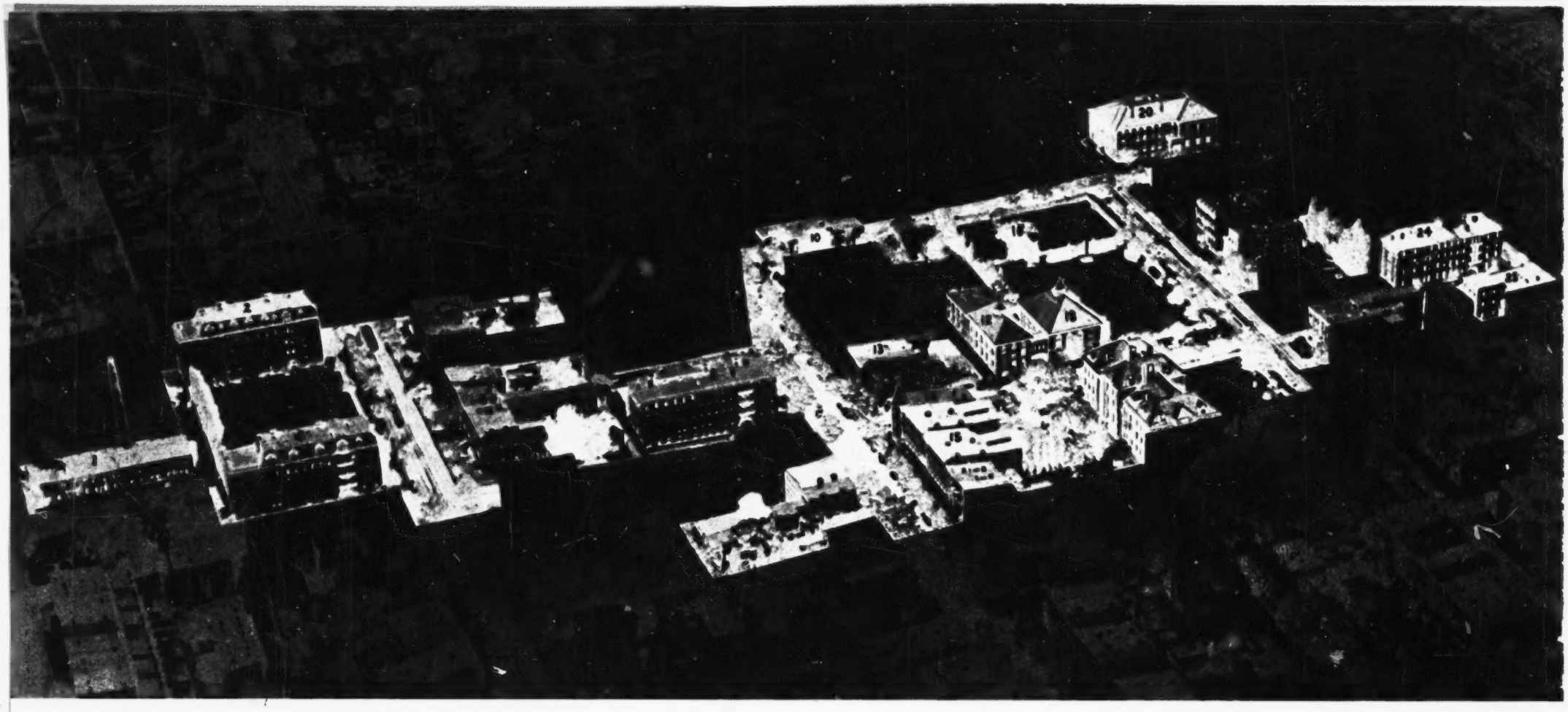
COLBY COLLEGE

The railroad at its doorstep symbolized the transformation of the old Colby College campus, above, from the ideal to the impossible. When the college opened its doors, it enjoyed an open site on the west bank of Maine's lovely, elm-shaded Kennebec River. But over the years, the college sold some of its land even as the town of Waterville grew up around it. By 1921, it found itself in unhappy surroundings, burdened with obsolete buildings and without room for expansion. In 1941, the citizens of Waterville gave the college a new site 2½ miles away. The new campus, right, opened in 1952 and now has 32 buildings.



TRINITY UNIVERSITY

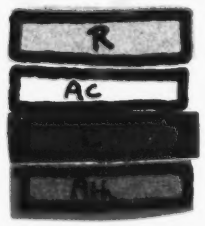
On its old campus, above, Trinity University was subject to all of the ills plaguing other institutions caught in an urban straitjacket. Most serious was the fact that major streets cut the campus into three islands. Travel between them was difficult if not dangerous. Unlike most other urban institutions, Trinity was able to find breathing room and an ordered existence without deserting the city. The new campus, right, consists of 107 acres, within the city limits, on a limestone cliff overlooking San Antonio's skyline.

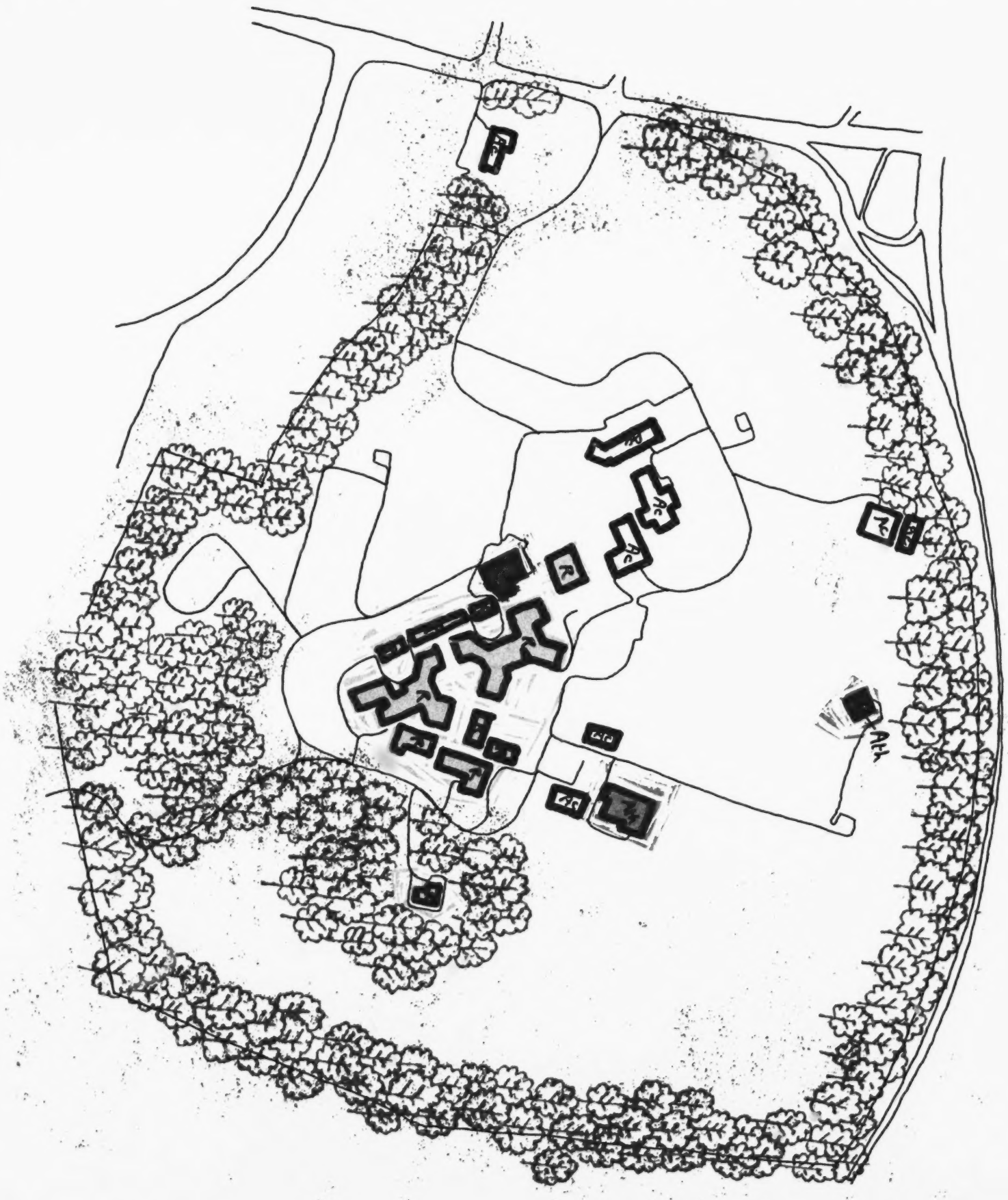


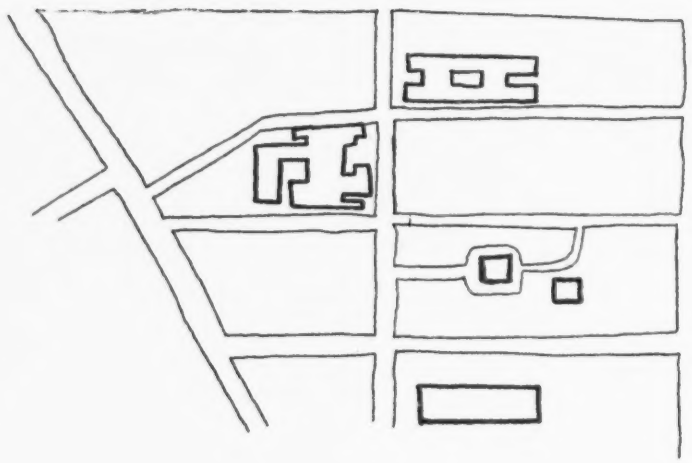
GOUCHER COLLEGE

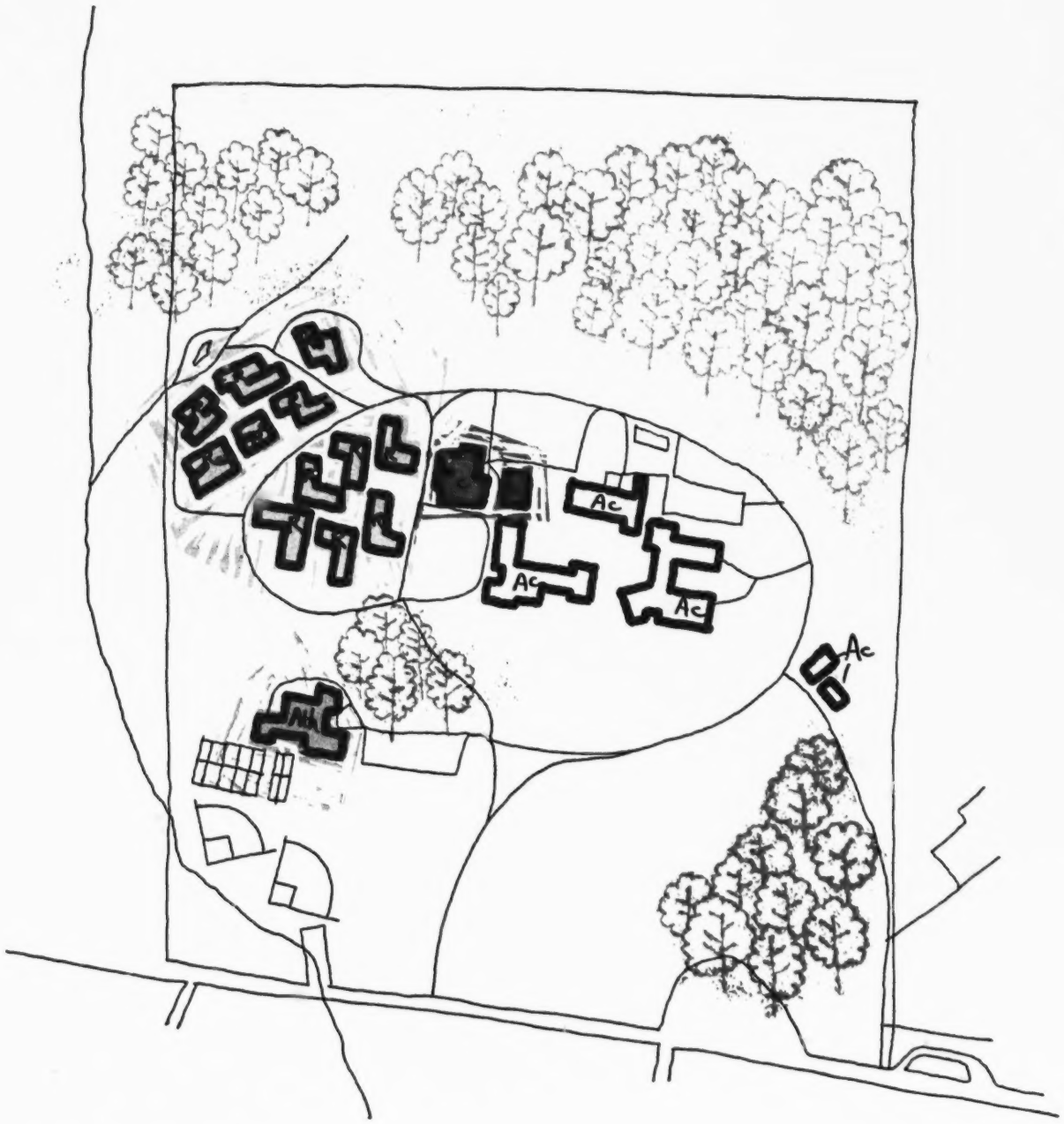
In 1886, a cornfield offered open spaces for a Goucher College campus. But by 1920, the idyll had turned into the urban nightmare above. Sprawling Baltimore had surrounded the campus, blocking growth and all but destroying the academic atmosphere. In 1921, the college bought 421 rolling acres seven miles away. Twenty years later, it began the move to a new campus, right, that would restore the college's image among its students, the community and the rest of the academic world.

RESIDENCE
ACADEMIC
COMMUNITY
ATHLETICS





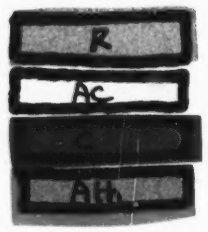




HARPUR COLLEGE

The old, at Harpur College, was a study in cramped disorganization. The campus, above, consisted of less than five acres of disconnected city lots and five buildings, three of them rented. There were virtually no athletic facilities. The spacious new campus, right, consists of 387 rolling acres, adequate for the well-planned development of a major center for the State University of New York to accommodate 5,000 undergraduates and 1,000 graduate students.

RESIDENCE
ACADEMIC
COMMUNITY
ATHLETICS



OTHER REPORTS FROM EFL

The following publications are available from the offices of EFL: 477 Madison Avenue, New York 22, N.Y.

THE THINGS OF EDUCATION. A report on EFL's activities.

COLLEGE STUDENTS LIVE HERE. A study of College Housing. A review of the factors involved in planning and building dormitories and other types of college housing.

TO BUILD OR NOT TO BUILD. A report on the utilization and planning of instructional facilities in small colleges.

CASE STUDIES OF EDUCATIONAL FACILITIES. A series of reports which provide information on specific solutions to problems in school planning, design, and construction.

CONVENTIONAL GYMNASIUM VS. GEODESIC FIELD HOUSE. West Bethesda High School, Montgomery County, Maryland.

SPACE AND DOLLARS: An Urban University Expands. A report on the economic physical expansion of urban universities based on a case study of the Drexel Institute of Technology.

A DIVISIBLE AUDITORIUM. Boulder City High School, Boulder City, Nevada.

EFL COLLEGE NEWSLETTER. For college administrators, to keep them up to date on the studies of physical facilities for higher education being pursued by EFL.

All photographs courtesy of the institutions they represent, except:
P. 12: Jonathan King

Printed in U.S.A.